**Objective**

* Gain hands-on experience with Git commands, including branching and merging.
* Practice programming with a focus on problem-solving, error-handling, and code documentation.
* Understand how to manage a version control system for collaborative environments.

**Problem**

Write a program that does the following:

1. Prompts the user for integers until the user enters a q to quit.
2. Echoes the integers entered back to the user
3. Determines if the product of any two of the entered integers is equal to a third integer
4. Examples:
   * The user enters the integers 3, 27, 4, and 9. The program should respond with a message that “Condition is met: 3 x 9 = 27”
   * But if the user entered 3, 28, 4, and 9, the program should respond with “Condition was not met”
5. Note the user can enter to 0 to n integers.
6. Includes appropriate error handling:
   * Display an error message if the user does not enter an integer or the letter q.

**Work with Git and GitHub repositories:** Set up confirmation

1. Note: You will use the Git and GitHub from the last assignment. I should be a collaborator (my GitHub username is mcgarrymvcu)
2. Confirm your local repository is linked to your GitHub repository
   * git remote -v
3. If not, establish the link
   * Use git remote add origin <URL of your GitHub repository>

**Write and debug your program**

**Branching and Merging**

1. Pull from the GitHub Repository:
   * Pull your GitHub repository into your local repository to ensure it is synced
   * Command: git pull origin main
2. Create a Branch:
   * Create a new branch in your local repository for your work
   * The branch name should be new-feature
   * Command: git checkout -b new-feature
3. Add your program to the new branch.
   * Commit the changes with an appropriate message:
4. Merge the branch
   * Switch back to the main branch: git checkout main
   * Merge the new-feature branch into the main branch:
   * Command: git merge new-feature
5. Push the main branch from your local repository to your GitHub repository

**Deliverables**

1. Screenshots: Provide a package of screenshots demonstrating the following:
   * Your program code.
   * Proof that the program runs successfully. It should include the following cases:
     1. The user enters two or less integers
     2. The condition is met
     3. The condition is not met
   * Git commands for creating a branch, merging it, and viewing the Git history (e.g., git log).
   * Your GitHub repository showing the program.
2. Code Requirements:
   * Include comments explaining the code.

**Rubric:**

* Code meets specification, has appropriate comments and error handling: 60 points
* Git command for executing the pull, creating the branch, merging the new branch into main, and git history: 20 points
* Screenshot of the GitHub repository showing your program: 20 points